PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AND THE ADDITION OF INTERCONNECT AT THE INTERSECTION OF MD 122 AND GWYNN OAK AVE. IN BALTIMORE COUNTY. MD 122 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 122 APPROACHES OPERATING CONCURRENTLY AND THE GWYNN OAK AVE. APPROACH OPERATING ALONE.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE WEST AND EAST LEGS OF MD 122.

EXLUSIVE LEFT-TURN PHASING IS PROVIDED FOR EASTBOUND MD 122.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE AND TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS. ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30
STANDARD NO. MD-104.37-01 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.38-01 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.41-01 (INTERSECTION FAR-RIGHT LANE CLOSURE)
STANDARD NO. MD-104.43-01 (SHOULDER WORK)
STANDARD NO. MD-104.44-01 (LEFT LANE CLOSURE)
STANDARD NO. MD-104.45-01 (RIGHT LANE CLOSURE)
STANDARD NO. MD-104.46-01 (CENTER LANE CLOSURE)
STANDARD NO. MD-104.48-01 (INTERSECTION TURN BAY LANE CLOSURE)
STANDARD NO. MD-104.49-01 (SHOULDER WORK)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

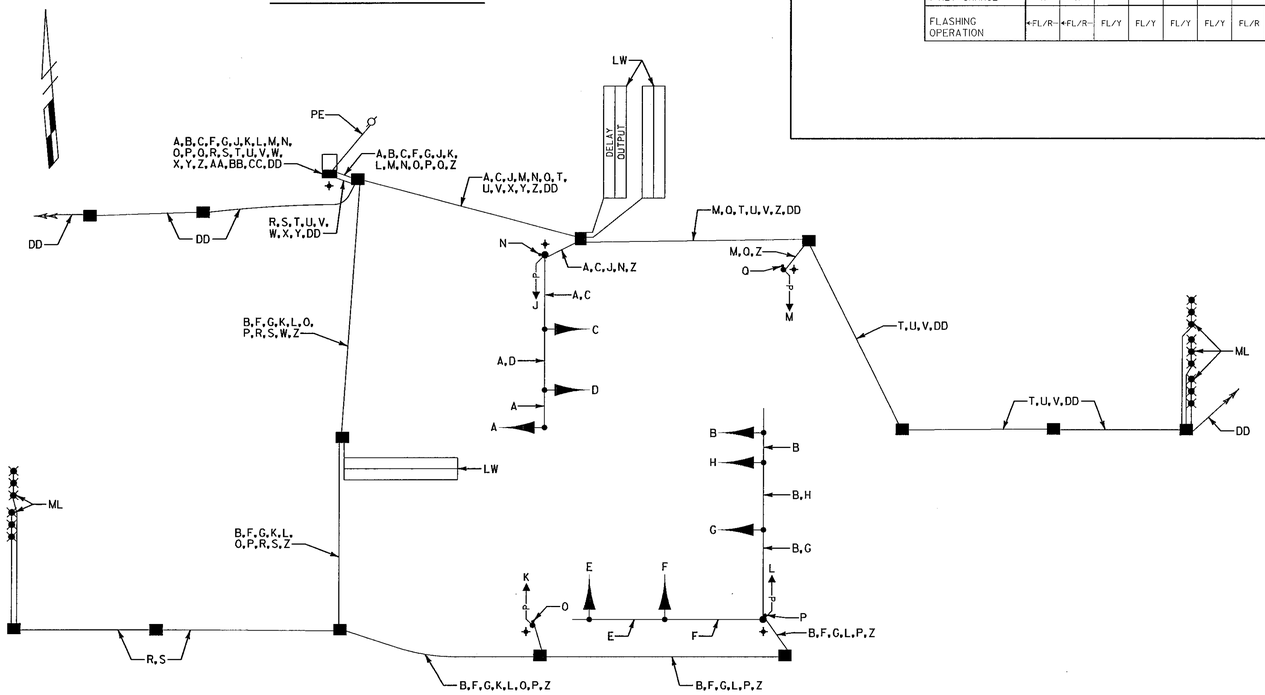
MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410 321-2781

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 321-2761

MS. SUENNETTE POPE
DISTRICT UTILITIES ENGINEER
PHONE: (410) 321-2841

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAM



WIRING KEY

- A, B — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C, D, E, F, G, H — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J, K, L, M — 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- N, O, P, Q — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- R, S, T, U, V — MICROLOOP PROBE LEAD-IN
- W, X, Y — 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)
- Z — STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- AA, BB, CC — 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
- DD — 12 PAIR COMMUNICATION CABLE (JELLY-FILLED) (SEE INTERCONNECT PLANS)

LW - LOOP WIRE (NO. 14 A.W.G.)
ML - MICROLOOP PROBE SET
PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
⏚ - 3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

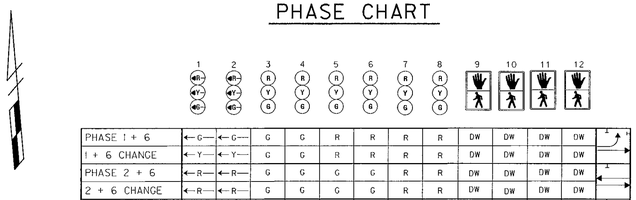
ITEM NO.	QUANTITY	DESCRIPTION
9002	2 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9087	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9089	90 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 2 EACH	D-3(1) SIGN "GWYNN OAK AVE." (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT
	- 1 EACH	D-3(1) SIGN "SECURITY BLVD." (VARIABLE x 16 IN.) - MAST ARM MOUNT
	- 2 EACH	R3-5L (30 IN. x 36 IN.) - MAST ARM MOUNT
	- 1 EACH	R4-7 (24 IN. x 30 IN.) - GROUND MOUNT
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "EAST, MD 122, LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT
	- 1 EACH	ASSOCIATED SHIELD ASSEMBLY "WEST, MD 122, RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTOLLER CABINET. ALL OTHER REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PHASE CHART



PHASE 1 + 6	←G—	←G—	G	G	R	R	R	R	DW	DW	DW	DW	
1 + 6 CHANGE	←Y—	←Y—	G	G	R	R	R	R	DW	DW	DW	DW	
PHASE 2 + 6	←R—	←R—	G	G	G	G	R	R	DW	DW	DW	DW	
2 + 6 CHANGE	←R—	←R—	G	G	G	G	R	R	DW	DW	DW	DW	
PHASE 4	←R—	←R—	R	R	R	R	G	G	DW	DW	DW	DW	
4 CHANGE	←R—	←R—	R	R	R	R	Y	Y	DW	DW	DW	DW	
PHASE 4 ALT	←R—	←R—	R	R	R	R	G	G	WK	WK	WK	WK	
PED CLEARANCE	←R—	←R—	R	R	R	R	G	G	FL/DW	FL/DW	FL/DW	FL/DW	
4 ALT CHANGE	←R—	←R—	R	R	R	R	Y	Y	DW	DW	DW	DW	
FLASHING OPERATION	←FL/R—	←FL/R—	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK	

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2002	6 C.Y.	TEST PIT EXCAVATION
5004	370 L.F.	12 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5005	30 L.F.	24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5008	30 L.F.	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
6004	200 S.F.	4 INCH CONCRETE SIDEWALK
8006	1 EACH	CUT, CLEAN AND CAP TRAFFIC SIGNAL STRUCTURE
8010	8 EACH	FURNISH AND INSTALL 12 IN. PEDESTRIAN TRAFFIC SIGNAL HEAD SECTION
8011	24 EACH	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8022	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT FOR SIGNAL
8024	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND 50 FT. MAST ARM
8027	5 EACH	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FOOT LEAD-IN CABLE
8029	2 EACH	FURNISH AND INSTALL PEDESTRIAN POLE (ANY SIZE)
8031	4 EACH	FURNISH AND INSTALL PUSHBUTTON AND SIGN
8033	1 EACH	FURNISH AND INSTALL TWIN MAST ARM POLE AND 50 FT./ 60 FT. MAST ARM
8050	7 EACH	REMOVE AND DISPOSE FOUNDATION 12 IN. BELOW GRADE
8051	1 EACH	REMOVE AND DISPOSE MATERIAL & EQUIPMENT PER ASSIGNMENT
8054	700 L.F.	FURNISH AND INSTALL 3 IN. SCHEUDLE 80 RIGID PVC CONDUIT - TRENCHED
8055	325 L.F.	FURNISH AND INSTALL 4 IN. SCHEUDLE 80 RIGID PVC CONDUIT - BORED
8056	180 L.F.	FURNISH AND INSTALL 4 IN. SCHEUDLE 80 RIGID PVC CONDUIT - TRENCHED
8063	14 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8064	16 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN.
8066	450 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8067	40 L.F.	FURNISH AND INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8073	30 L.F.	FURNISH AND INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR WIRE SLEEVE
8074	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 A.W.G - THHN/THWN
8076	13 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8078	5 S.F.	INSTALL GROUND MOUNTED SIGN
8079	85 S.F.	INSTALL OVERHEAD SIGN
8083	6 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8084	230 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8085	1000 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G)
8086	1000 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 A.W.G)
8087	950 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G)
8088	575 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G)
8090	1450 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/4 INCH FLEXIBLE TUBING (NO. 14 A.W.G)
8091	550 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8094	330 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8096	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

TSP-6

WR&A
Whitman, Requardt and Associates, LLP
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Baltimore, Maryland 21231
(410) 235-3450

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
MD 122 (SECURITY BLVD.) AND GWYNN OAK AVE.

DRAWN BY:	S. BLOSS	F.A.P. NO.		TS NO.	SHEET NO.
CHECKED BY:	N. LEARY	S.H.A. NO.	XX1085185	4264 A	
SCALE:	NONE	COUNTY:	BALTIMORE	T.I.M.S. NO.	___ OF ___
DATE:	6/26/2003	LOG MILE:	03.01 & 03.38	E449	

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